

PATENT
Serial No. 10/500,620

Amendment in Reply to Office Action mailed on June 5, 2006

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) ~~Transceiver~~ A transceiver for transmitting signals in a transmitting mode and for receiving signals in a receiving mode and comprising a single digital synthesizer ~~(24)~~ driven phase locked loop ~~(10-15)~~, characterized in that ~~wherein~~ said digital synthesizer driven phase locked loop ~~(24, 10-15)~~, in said transmitting mode, is in a modulating state, with said digital synthesizer driven phase locked loop ~~(24, 10-15)~~, in said receiving mode, being in an oscillating state and receiving a non-modulation signal including at least one of a dc-voltage and a ground voltage.

2. (Currently amended) ~~Transceiver~~ The transceiver according to claim 1, characterized in that ~~wherein~~ said digital synthesizer

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driven phase locked loop (24,10-15) receives, in said modulating state, a modulation signal, with said digital synthesizer driven phase locked loop (24,10-15), in said oscillating state, receiving a non-modulation signal.

3. (Currently amended) Transceiver The transceiver according to claim 2, characterized in that wherein said transceiver comprises a controller (40) for generating said modulation signal and for generating control signals, with a switch (32) being coupled to said controller (40) and said digital synthesizer driven phase locked loop (24,10-15) for in response to a first control signal supplying said modulation signal from said controller (40) to said digital synthesizer driven phase locked loop (24,10-15) and in response to a second control signal supplying said non-modulation signal to said digital synthesizer driven phase locked loop (24,10-15).

4. (Currently amended) Transceiver The transceiver according to claim 1, characterized in that wherein said digital synthesizer driven phase locked loop (24,10-15) comprises, in said modulating

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state, a first filtering performance, with said digital synthesizer driven phase locked loop ~~(24,10-15)~~ comprising, in said oscillating state, a second filtering performance different from said first filtering performance.

5. (Currently amended) ~~Transceiver according to claim 4,~~
~~characterized in that~~ A transceiver for transmitting signals in a
transmitting mode and for receiving signals in a receiving mode and
comprising a single digital synthesizer driven phase locked loop
wherein said digital synthesizer driven phase locked loop, in said
transmitting mode, is in a modulating state, with said digital
synthesizer driven phase locked loop in said receiving mode, being
in an oscillating stat

wherein said single digital synthesizer driven phase locked
loop ~~(24,10-15)~~ comprises a first filter (12) for said first
filtering performance and a second filter (13) for said second
filtering performance, with a switch (11) being coupled to said
filters first filter and said second filter ~~(12,13)~~ for in response
to a first control signal selecting said first filter (12) and in
response to a second control signal selecting said second filter

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~~(13).~~

6. (Currently amended) ~~Transceiver~~ The transceiver according to claim 1, ~~characterized in that wherein~~ said digital synthesizer driven phase locked loop ~~(24,10-15)~~, in said modulating state, generates a modulated signal, with said digital synthesizer driven phase locked loop ~~(24,10-15)~~, in said oscillating state, generating a said non-modulated signal.

7. (Currently amended) ~~Transceiver~~ The transceiver according to claim 6, ~~characterized in that wherein~~ an output of said digital synthesizer driven phase locked loop ~~(24,10-15)~~ is coupled via a first switch ~~(5)~~ and a transmitter part ~~(2)~~ and a second switch ~~(3)~~ to an antenna ~~(1)~~ for in response to a first control signal supplying said modulated signal to said antenna ~~(1)~~ for transmitting said modulated signal, with said first switch ~~(5)~~ further being coupled to a first input of a demodulator ~~(6)~~ and with said second switch ~~(3)~~ further being coupled via a receiver part ~~(4)~~ to a second input of said demodulator ~~(6)~~ for in response to a second control signal supplying said non-modulated signal to

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said demodulator ~~(6)~~ for demodulating a radio signal received via
said antenna ~~(1)~~.

8. (Currently amended) A single digital synthesizer driven
phase locked loop ~~(24, 10-15)~~ for use in a transceiver for
transmitting signals in a transmitting mode and for receiving
signals in a receiving mode and comprising said single digital
synthesizer driven phase locked loop ~~(24, 10-15)~~, characterized in
that wherein said single digital synthesizer driven phase locked
loop ~~(24, 10-15)~~, in said transmitting mode, is in a modulating
state, with said single digital synthesizer driven phase locked
loop ~~(24, 10-15)~~, in said receiving mode, being in an oscillating
state, and wherein said single digital synthesizer driven phase
locked loop comprises a first filter and a second filter, with a
switch being coupled to said first filter and said second filter
for in response to a first control signal selecting said first
filter and in response to a second control signal selecting said
second filter.

9. (Currently amended) Phase-A phase locked loop ~~(16-15)~~ for

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use in a single digital synthesizer driven phase locked loop
~~(24,10-15)~~ for use in a transceiver for transmitting signals in a
transmitting mode and for receiving signals in a receiving mode and
comprising said digital synthesizer driven phase locked loop
~~(24,10-15)~~, characterized in that wherein said phase locked loop
~~(10-15)~~, in said transmitting mode, is in a modulating state, with
said phase locked loop ~~(10-15)~~, in said receiving mode, being in an
oscillating state, and wherein said single digital synthesizer
driven phase locked loop comprises a first filter and a second
filter, with a switch being coupled to said first filter and said
second filter for in response to a first control signal selecting
said first filter and in response to a second control signal
selecting said second filter.

10. (Currently amended) Digital ~~A digital~~ synthesizer ~~(24)~~ for
use in a single digital synthesizer driven phase locked loop
~~(24,10-15)~~ for use in a transceiver for transmitting signals in a
transmitting mode and for receiving signals in a receiving mode and
comprising said digital synthesizer driven phase locked loop
~~(24,10-15)~~, characterized in that wherein said digital synthesizer

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(24), in said transmitting mode, is in a modulating state, with said digital synthesizer--(24), in said receiving mode, being in an oscillating state, and wherein said single digital synthesizer driven phase locked loop comprises a first filter and a second filter, with a switch being coupled to said first filter and said second filter for in response to a first control signal selecting said first filter and in response to a second control signal selecting said second filter.

11. (Currently amended) ~~System~~ A system comprising at least one portable unit and at least one network unit for radio communication, with at least one unit comprising at least one transceiver for transmitting signals in a transmitting mode and for receiving signals in a receiving mode and comprising a single digital synthesizer driven phase locked loop ~~(24, 10-15)~~, characterized in that wherein said digital synthesizer driven phase locked loop ~~(24, 10-15)~~, in said transmitting mode, is in a modulating state, with said digital synthesizer driven phase locked loop ~~(24, 10-15)~~, in said receiving mode, being in an oscillating state, and wherein said single digital synthesizer driven phase

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locked loop comprises a first filter and a second filter, with a switch being coupled to said first filter and said second filter for in response to a first control signal selecting said first filter and in response to a second control signal selecting said second filter.

12. (Currently amended) ~~Portable~~ A portable unit comprising a transceiver for transmitting signals in a transmitting mode and for receiving signals in a receiving mode and comprising a single digital synthesizer driven phase locked loop (24,10-15), characterized in that wherein said digital synthesizer driven phase locked loop (24,10-15), in said transmitting mode, is in a modulating state, with said digital synthesizer driven phase locked loop (24,10-15), in said receiving mode, being in an oscillating state, and wherein said single digital synthesizer driver phase locked loop comprises a first filter and a second filter, with a switch being coupled to said first filter and said second filter for in response to a first control signal selecting said first filter and in response to a second control signal selecting said second filter.

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13. (Currently amended) ~~Network~~ A network unit comprising at least one transceiver for transmitting signals in a transmitting mode and for receiving signals in a receiving mode and comprising a single digital synthesizer driven phase locked loop ~~(24,10-15)~~, ~~characterized in that wherein~~ said digital synthesizer driven phase locked loop ~~(24,10-15)~~, in said transmitting mode, is in a modulating state, with said digital synthesizer driven phase locked loop ~~(24,10-15)~~, in said receiving mode, being in an oscillating state, and wherein said single digital synthesizer driven phase locked loop comprises a first filter and a second filter, with a switch being coupled to said first filter and said second filter for in response to a first control signal selecting said first filter and in response to a second control signal selecting said second filter.

14. (Currently amended) ~~Method~~ A method for transmitting signals in a transmitting mode and for receiving signals in a receiving mode via a single digital synthesizer driven phase locked loop ~~(24,10-15)~~, ~~characterized in that wherein~~ said method

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comprises a first step of the acts of:

bringing said digital synthesizer driven phase locked loop
(24,10-15), in said transmitting mode, in a modulating state, and a
second step of

in said receiving mode, bringing said digital synthesizer
driven phase locked loop (24,10-15), in said receiving mode, in an
oscillating state, and wherein said single digital synthesizer
driven phase locked loop comprises a first filter and a second
filter, with a switch being coupled to said first filter and said
second filter for in response to a first control signal selecting
said first filter and in response to a second control signal
selecting said second filter.

15. (New) The transceiver of claim 1, further comprising a
mode detector configured to detect said transmitting mode and said
receiving mode by making a calculation using a first predetermined
time slot used for transmission and a second predetermined time
slot used for reception.

16. (New) The single digital synthesizer driven phase locked

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loop of claim 8, wherein said single digital synthesizer driven phase locked loop, in said oscillating state, is configured to receive at least one of a dc-voltage and a ground voltage.

17.(New) The phase locked loop of claim 9, wherein said single digital synthesizer driven phase locked loop, in said oscillating state, is configured to receive at least one of a dc-voltage and a ground voltage.

18.(New) The system of claim 11, wherein said single digital synthesizer driven phase locked loop, in said oscillating state, is configured to receive at least one of a dc-voltage and a ground voltage.

19.(New) The portable unit of claim 12, wherein said single digital synthesizer driven phase locked loop, in said oscillating state, is configured to receive at least one of a dc-voltage and a ground voltage.

20.(New) The network unit of claim 13, wherein said single

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digital synthesizer driven phase locked loop, in said oscillating state, is configured to receive at least one of a dc-voltage and a ground voltage.

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